





### DEWA 200 MW PV – A Case Study



### **ACWA Power**

- 18GW of power and 550MIGD water under ownership and operations
- Development and/or operations in South Africa, Egypt, Morocco, Jordan, Mozambique, Turkey, Vietnam apart from GCC region.
- Renewable Projects in portfolio
  - Karadzhalovo, Bulgaria: 60MWp Solar PV
  - Noor 1, Morocco: 160MW Solar CSP
  - Bookport, South Africa: 50MW Solar CSP
  - BioEnergie, Czech Republic: 1MW Waste-2-Energy
  - Shuaa, Dubai: 260MWp Solar PV
  - Khalladi, Morocco: 120MW Wind
  - Noor II & III, Morocco: 350MW CSP
  - Further projects under advanced development and financing in Egypt, Jordan, South Africa.

Bokpoort CSP plant (South Africa) inaugurated in 15th March 2016



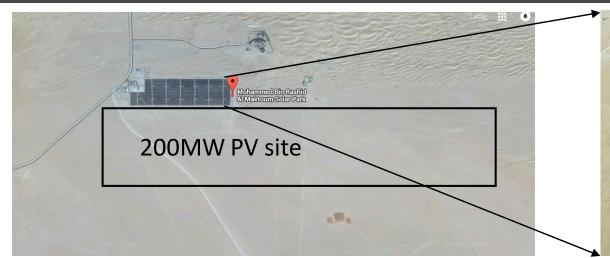
Noor I CSP plant (Morocco) inaugurated in 15th March 2016

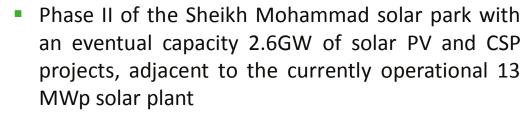






### Shuaa Energy – 1, 200MW Solar PV, Dubai





- Site: Sheikh Mohammad Al Maktoum Solar Park, 50km south of Dubai
- Scheduled COD Date: Apr'17
- PPA term: 25 years
- EPC Contractor: TSK, Spain. O&M Contractor: **NOMAC**
- Thin Film Fixed Tilt Technology
- Modules: First Solar, Inverters: GE or SMA

























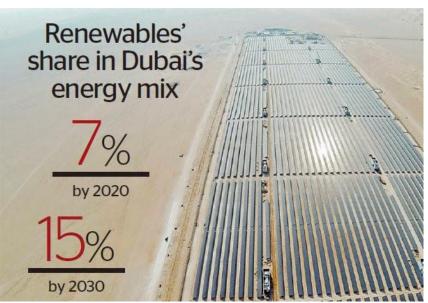






### The Achievement





- ✓ Globally, the **largest solar PV plant** procured via a single tender.
- ✓ LCOE of 5.84 cents is a global milestone for commercial solar PV and a compelling economic alternative to gas based power
- ✓ Strong LCOE resulted in DEWA awarding double the original capacity.
- √ The 1<sup>st</sup> competitively tendered solar PV IPP in GCC
- ✓ Dubai's first true "ring fenced" limited recourse PF transaction
- √ The 1<sup>st</sup> IPP of the emirate of Dubai-demonstrates the credibility
  of DEWA as a procurer of IPPs.
- ✓ Benchmark transaction and template for the entire region –
  potential of being replicated not only in Dubai / UAE but also
  across the GCC.
- ✓ Opened up the regional bank market for renewable energy project finance via highly offtaker friendly risk allocation framework.





### Creating Competitive Advantage

# Capability Building

- Building and nurturing a talent pool with deep experience in renewables and solar PV technology, financing and operating experience.
- Building a development and operating track record of solar PV via acquisitions and greenfield development so that ACWA Power is well placed to participate in the growing demand for renewable energy in the region.

#### **Client Focus**

- Understanding the needs and constraints of the client (DEWA) and no compromise on their preferred risk allocation framework
- Managing the financing parties and contractors to adhere to DEWA's requirements

#### **Partnership**

- TSK (EPC Contractor and technical investor)
  - Trust built after a history of close partnership in several projects in the development and construction phase in markets across Africa and Middle East.
- First Solar (module supplier)
  - Leading vertically integrated solar PV company with long term vision and commitment for for the region

## Technology Selection

- Continuous search and testing of the optimal configuration
  - Thin Film vs poly crystalline panels, Fixed Tilt vs tracking solution, DC/AC Ratio, O&M assumptions
- Equipment Selection: maximizing the performance to cost ratio, while satisfying the requirements of the offtaker.

### Financing

DEWA PV IPP demonstrates the role of a strong financing solution in delivering unprecedented competitiveness even case of a emerging technology and new PPP jurisdiction.

- Financial Close achieved in Q3 2015
- 278 M\$ senior financing raised from local and regional commercial banks who were all first timers to this technology.
- 1<sup>st</sup> true "ring-fenced" limited recourse project financing involving a multi-tranche Conventional and Islamic Financing structures.
- Over 84:16 Project-finance-Debt: Equity in Project Company;
   Highest gearing achieved in the region in recent years.
- At 27 years, Longest notional tenor for any project financing in Dubai; Among the longest tenors for Solar PV projects globally.
- Top regional and international banks First Gulf Bank, National Commercial Bank, SAMBA Financial Group
- World class advisers for sponsors, procurer and lenders resulting in a best in class financing framework.
- Cements the strong perception of DEWA as an extremely solid counterparty and stakeholder.









### Recognition



Winner of Utility Scale Solar Project of 2015 from the MESIA (Middle East Solar Industry Association)



Winner of Middle East
Project Financing Deal of
the Year



Winner of the MENA Solar Power Deal of the Year











### **Thank You**

Leslie Abraham

Imabraham@acwapower.com

